

Impact of Stress, Anxiety, and Depression on Quality of Life of Health Care Professionals: A Post Covid-19 Lockdown Analysis

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ABSTRACT

The purpose of this study was to assess the effect of stress, anxiety, and depression, on the quality of life of health care professionals in post covid-19 lockdown along with the gender differences in the variables under study. Correlational research design was employed and data of ($N=120$) was taken through purposive sampling comprising general physicians ($n=35$), specialized physicians ($n=30$), psychiatrists ($n=20$), and psychologists ($n=35$) around the Malakand division of Khyber Pakhtunkhwa (KP), Pakistan. Collected data was then analyzed via statistical tools; the t-test, correlation, and linear regression analysis using Statistical Package for Social Sciences (SPSS) software. Statistical outcomes indicated that stress and depression have an adverse impact on the quality of life of health care professionals while anxiety on the other hand had no significant impact on them. Results further revealed that female health care professionals encounter higher level of stress, anxiety, and depression, with poor quality of life than male health care professionals in post covid-19 situation. This study catered to the post-covid 19 situation that contributed to the increase of mental health problems (like stress, anxiety, depression, and poor quality of life) in practicing mental health and physical health professionals as compared to other people. These findings would be beneficial for clinical psychologists to better understand the mental health of health care professionals in different clinical settings. Current study findings will fill the gaps regarding Pakistan-based literature for future studies in the same domain.

Keywords: Stress, Anxiety, Depression, Healthcare Professionals, Post Covid-19, Quality of life.

Introduction

Health Care professionals like physicians, psychiatrists, and psychologists were the people who remained on the frontline throughout the corona lockdown. The covid 19 suffering at its very earnest created a lot of panic in the common people as well as the people closely related to the health sector of human life. As the Covid-19, the name itself caused a lot of panic as no one at the very start of the pandemic had any idea

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about the disease caused by a coronavirus that alleviated the fear among the public (Swaminathan *et al.*, 2022). Mental health is largely associated with the pandemic lockdown and restrictions it has been varied in presentation, related to vulnerability and premorbid functioning, with social and economic factors contributing heavily (Maaba, 2021).

Though some people considered it a fake and made-up thing, the whole population was in great fear and stress as an emergency was declared in every sector of life and altogether life came to a sudden halt. As per SOPs and the government's instructions, people were forced to remain in their homes and even instructed to keep physical contact as less as possible. Though some of the life activities could not be simply ceased, the health care department was on top of everything. Therefore, it was made sure to make available as many doctors, physicians, health technicians, and mental health professionals as possible to manage the situation (Tan *et al.*, 2020).

All the people associated with health care services remained on the frontline and acted as a shield to protect the masses while sacrificing themselves for the good cause. The Covid-19 had direct and indirect impacts on healthcare professionals. As the death toll of Covid-19 was rising worldwide, fear, anxiety, and panic also rose that had severe psychological impacts on people's minds ranging from children to the eldest living individual. The most severe psychological impact that was caused by Covid-19 was related to one's overall health, no one wanted to be ill and that is why everyone for the sake of their own health tried to remain in houses, yet the health care professionals were unable to do so, and they had to be on the frontline. So, the maximum psychological distress experienced by these professionals leads to several other consequences including disturbance in their social and family (Tomer & Kane, 2020).

As healthcare providers have been instantly worked in the country's emergency, working overnight, regrettably, some of them have fall prey to the corona infection, and had unfortunately lost their lives (Gamio, 2020). The coronavirus has a malignant upshot on psychological health of health care workers, and they were most vulnerable to the pandemic. So, the mental health of health care workers has been negatively affected over the period of pandemic and post-pandemic (Brief, & George, 2020).

Stress, anxiety, depression and declined quality of life were the most common ones among them. More than 70% of health care service providers' life have never been through such a situation and it was their very first experience of such situation that enhanced their psychological distress (stress, anxiety, and depression). Many of these cases lead to serious psychological traumas as the severity of psychological issues such as stress, anxiety and depression were out of their coping capacities (Alnazly *et al.*, 2021).

Covid-19 laid chaotic disturbances in the life of Healthcare Professionals. As soon as the cure to the pandemic was introduced and life began coming to the normal state, various kinds of psychological and physiological impacts of the pandemic associated lockdowns started appearing in the professionals. As the healthcare workers and professionals during this pandemic were the more prominent and of greater concern. Several studies were conducted worldwide to study, evaluate, and address the impacts of Covid-19 on public health professionals (Norful *et al.*, 2021). while the present study is focusing on the post-covid 19 situations of mental health factors among them.

Stress, anxiety, and depression are common encountering disorders for psychologists, psychiatrists, and behavior scientists all around the world. Amongst the somatic and psychological issues, depression is the most occurring mood disorder in the biosphere, comprising low affective state, anhedonia, feelings of guilt and self-worthlessness, poor appetite and disturbance in sleep, reduced level of energy and concentration (Lai *et al.*, 2020). Anxiety and depression are the most common prevalent psychiatric disorders with an average of 10 to 20 percent in worldwide. While stress is an inevitable condition of person's life and has its slot among the most occurring problems in the current lifestyle. In the etiology of the above-mentioned psychological disorders, genetic, heredity, ecological, psychological, communal, and genetic factors are involved. Exposure to the constant state of anxiety and stress provocation, an individual, often drops his/her level of confidence and transformed into a depressed individual, these usually enhance work-place stress and lack of efficient functioning (Greenberg *et al.*, 2020). It was evident from the literature that coronavirus

has a menacing effect on the psychological health of health care workers during and after the pandemic lockdown and they are vulnerable to distress. Hence, their mental health is negatively affected (Jun *et al.*, 2020).

Studies reveal that people who experienced pandemic social distancing restrictions are more inclined to multiple complaints of psychological problems, like distress, low mood, emotive fatigue, sleeplessness, and post traumatic anxiety (Hosseinzadeh Shanjani, *et al.*, 2020). Another survey was conducted on healthcare providers to express their perception of the existing pandemic, most of the responses were bushed, intimidated, distressed, anxious and the current capacity of work is not maintainable. It was also mentioned by them that the globe is fronting two contagions simultaneously: corona virus and the damaging sensations it generates (Jaber *et al.*, 2022).

A study published at the time of lockdown revealed that healthcare professionals were on the front line, in their private clinics or hospitals, and they directly fought in opposition to the pandemic, without taking care of their personal mental and physical risk. Corona pandemic is an unprecedented time that included a lot of risks and their decision of working under pressure was a self-sacrificing move. Healthcare workers tried to handle this distressing situation, and their coping strategies during and after the pandemic explain their somatic and psychological quality of health. Apprehension, low affect, and the dreadful situation led to an unhealthy emotional state that can easily trigger stress in them. Literature showed evidence that healthcare providers had faced severe concerns regarding their mental health and experienced a state of anxiety along with complaints of depression, and distress (Kandula, & Wake, 2021).

Earlier research of covid 19 and its lockdown have explained that the mental health consequences of this transmittable illness can persist for more than three to four months period. Health care professionals are supposed to cope with the pandemic and lockdown crisis during covid 19. They have dealt with their patients' traumatic situations and the unforeseen loss of loved ones, and colleagues. Consequently, health care workers are affected by emotional distress, including depression, anxiety, and stress. Elevated states of anxiety and depression were more predominant in female front-line workers than in men and second-line health-care providers (Karimi & Brazier, 2016).

The WHO (2020) primarily addressed this problem and stated that the physical and psychological health care servants should be safeguarded during the pandemic period by confirming safety measures to protect themselves. As per the literature, they are more vulnerable to psychological illness during the onset of pandemic situations. Stress, depression, and anxiety are factors that adversely affect the wellbeing of health care professionals. When researchers explained, analyzed, and relate the mental health complaints of health care servants and other employees after the pandemic, they can provide important insight into the mitigation of mental health risks and protect their quality of life and subjective well-being (Fteropoulli *et al.*, 2021).

Their over wellness including the objective description and subjective analysis of somatic, materialistic, social, and emotional well-being together with the extent of personal growth and purposeful activity, all weighted by a subjective perception of values should be ensured among healthcare providers (Young *et al.*, 2021).

Rationale of the Study

The current article examined the impact of psychological adverse effects like stress, anxiety, and depression on the quality of life of health-care professionals especially post corona lockdown. It will surely provide an awareness towards the identification of the prevalence of study variables in the sample, which in turn could be used to tackle the problems of stress, anxiety, depression, and poor quality of life. This study will provide support in the management and tackling of any kind of emergency by providing fruitful discussion on the quality of life of health care professionals. This study filled the gaps in Pakistani literature for post covid 19 studies on the mental condition of health care professionals.

Objectives

- To know the effect of stress, anxiety, and depression, over the quality of life of health care professionals in post covid-19 lockdown situation.
- To study gender differences among health care providers on stress, anxiety, and depression.

Hypotheses

1. Quality of life has a negative correlation with stress, anxiety, and depression in post covid 19.
2. Stress, anxiety, and depression has a positive correlation among them health care professional during post covid 19 situations.
3. Stress, anxiety, and depression impact negatively on the quality of life of health care professionals in post covid 19 situations.
4. Female health care providers have more stress, anxiety, depression, and poor quality of life than male health care providers in post covid 19 situations.

Methodology

Instruments

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) comprised three self-reported sub scales measuring the prevalent condition of depression, stress, and anxiety. Each of the three sub scales has 7 items. Scores for stress, depression, and anxiety can be calculated by adding up the response scores for the items. The reliability of the whole scale indicated its excellence with Cronbach's alpha of 0.79, 0.80 and 0.78 for the subscales of stress, anxiety and depressive respectively. It has significantly high internal consistency, discriminative, concurrent, and convergent validities (Lovibond & Lovibond, 1995).

The World Health Organization Quality of Life (WHOQOL)-BREF, World Health Organization formulated a group of researchers to introduce this scale for the measure of quality of life of individuals and it is applicable globally. Scale comprises 26 items that are self-reported in nature and especially applicable for the assessment of psychological disturbances in adults (Fallowfield, 2009). It evaluates the effect of illnesses and deterioration of performance on regular basis/activities, it also focuses on the behavior, assumed health condition, disfunction, and decreased person's capacity. The 04 sub scales are Physical Health, Psychological Health, Social Relationships, and Environment. The present version is a shorter form of *WHOQOL* (100 items), and it can independently be used as it is a valid tool for people with disturbances as well as normal populations. Shawver *et al.* (2016) evaluated about the scale's internal consistency and validation of the 04 domains. The reliability of the scale indicated its excellence with Cronbach's alpha of 0.88.

Research Design & Sample

A correlational research design with a sum of $N=120$ health care professionals was chosen through a purposive sampling method from the targeted population by keeping in mind the nature of the context and availability of the selected sample. The sample entails general physician ($n=35$), specialized physician ($n=30$), psychiatrist ($n=20$), and psychologist ($n=35$) and overall male ($n=70$) and female ($n=50$) from private and public hospitals of Malakand, Swat, and Dir region. Data was collected from these areas after the restrictions of lockdown were removed i.e., October 2021 onwards.

Procedure

Firstly, permission was taken from different hospitals in Dir, Malakand, and Swat. Informed consent was taken from the identified sample. The purpose of this research was to evaluate the impact of anxiety, stress, and depression on quality of life of health care professionals in post covid-19 situation. Instructions were given before distributing the questionnaire. The instruction includes that there was no right or wrong answer. We only required your actual answer options. After that the questionnaires were given to participants at the first page the demographic form was filled out, which include gender, place of practice,

and profession. At last participants fill the questionnaires with full attention and no one felt discomfort during the whole process.

Ethical consideration

There was no deception or fabrication in the aim and objectives of the study. Real information was given in the informed consent. To take into consideration the confidentiality of the participants they were not asked for their names. There was no relationship between the participants and the researcher. Participants were treated with respect and their privacy and confidentiality were ensured.

Results

Total of 120 health care professionals with respect to gender and profession were selected for the current study. Male health professionals ($f=70$, 58.3%) and female health professionals ($f=50$, 41.7%). General physician and Psychologist ($f=35$, 29.2%) were greater in number as compared to specialized physician ($f=30$, 25.0%) and psychiatrist ($f=20$, 16.7%).

Table 1: Reliability analysis of study scales and Pearson correlation among research variables ($N=120$)

Variables	Scale items	α	1	2	3	4
1. Stress	07	0.79	-	.75**	.71**	-0.3
2. Anxiety	07	0.80		-	.67**	-.06
3. Depression	07	0.78			-	-.21*
4. Quality of Life	26	0.88				-

* $p<.05$. ** $p<.01$

Table 1 shows reliability analysis of sub scales and α value of research variables. Analysis shows that the stress ($\alpha = .79$), anxiety ($\alpha = .80$), depression ($\alpha = .78$) and QoL Scale ($\alpha = .88$) have strong reliabilities. It also indicated that stress have a significant positive correlation with anxiety $r(118) = .75$, $p < .01$, and depression $r(118) = .71$, $p < .01$, while it has negative significant correlation with quality-of-life $r(118) = -.20$, $p < 0.05$. Findings revealed that anxiety and depression have a significant positive correlation $r(118) = .67$, $p < .01$. Results further show that depression and quality of life have a significant negative correlation $r(118) = -.21$, $p < .05$.

Table 2: Linear regression analysis indicating the impact of Stress, Anxiety and Depression on Quality of Life of Health care professionals ($N=120$)

Variable	B	SE	β	Quality of Life	
				95% CI	
				LL	UL
(Constant)	90.514***	10.093		70.52	110.50
Stress	-.494*	.210	-.329	-.911	-.078
Anxiety	-.074	.188	-.052	-.446	.298
Depression	-1.47**	.478	-.317	-2.42	-.527
R^2			.114		

* $p<.05$, ** $p<.01$, *** $p<.001$

Linear regression analysis (Table 2) of stress, anxiety, and depression on quality of life in health care providers. The R^2 value of predictors revealed that 11.4% variance is present in the outcome with $F(3,116) = 4.97$, $p < 0.01$. Similarly, the findings revealed that stress and depression are significantly negative predictors of quality of life among health care professionals ($\beta = -.329$, $p < .05$, $\beta = -.317$, $p < .001$).

Table 3: Mean, standard deviation, and t-values for men and women health care professionals on stress, anxiety, and depression and QoL (N=120)

Variables	Men (n=70)		Women (n=50)		T	p	CI 95%		Cohen's d
	M	SD	M	SD			LL	UL	
Stress	10.97	4.62	10.16	4.74	.94	.350	-.901	2.52	-
Anxiety	10.97	4.86	10.56	4.08	.45	.655	-1.40	2.23	-
Depression	9.71	4.97	9.88	4.82	.18	.856	-1.97	1.63	-
Quality of Life	86.87	14.51	81.56	13.09	2.06	.042	.199	10.42	0.38

Table 3 shows the mean, standard deviation, and t-values for men and women health professionals on stress, anxiety, depression, and quality of life. Results indicate non-significant mean differences on depression $t(118) = .18, p > .05$, anxiety $= .45$, and stress $= .94, p > .05$, while significant mean differences were there on quality of life with $t(118) = 2.06, p < .01$. The findings further indicate that male health professionals ($M = 86.87, SD = 14.51$) significantly scored higher on quality of life as compared to female health professionals ($M = 81.56, SD = 13.09$).

Discussion

The first hypothesis of the current study stated that quality of life is negatively correlated with stress, anxiety, and depression among healthcare professionals. The statistical analysis indicated a negative correlation while depression has significant values on it. These results exhibit that after covid-19 crisis, the lives of health care professionals were a bit better than that during covid-19. Similarly, another study also presents the relationship between anxiety, depression, and the quality of life of health care workers during corona. That article argues that health providers feel stressed because of the apprehensions and uncertainties associated with this fatal and contagious disease. The stressful environment, anxiety and depression have negative impacts on self-efficacy and quality of life (Sharma *et al.*, 2021; Wilson *et al.*, 2020).

The second hypothesis of this study is stress anxiety and depression are positively correlated with each other among health care professionals in post covid 19 situations. The healthcare professionals are known to suffer from mental crisis and other psychological hindrances, like anxiety depression, and stress, because of their exposure to different kinds of medical and mental emergencies. A cross sectional study of health care professionals has supporting evidence as with current findings in post covid situation. They state that those healthcare professionals who provide direct patient care and dealing, quarantine, or self-isolation, may experience more psychological distress than those who are not directly exposed to covid situation. They further claim that the frontline staff were at high risk and shows high level of psychological distress and other mental suffering in the long term (Jaber *et al.*, 2022).

The third hypothesis of the study states that stress, anxiety and depression have negative impact on quality of life domains of health care professionals in post covid- 19. The obtained results of the current study showed the negative impact of stress and depression on quality of life. The data obtained from the current study does not support the negative impact of anxiety on quality of life. This might be the reason that the negative impact is valid and evident during the havoc of the contagious disease, which is presented by the other research in this domain. However, other relevant literature shows the negative impact of stress, anxiety, and depression on quality of life of health care professionals (Çelmeçe & Menekay, 2020). All these relevant studies do support most of the current findings.

Lastly, Female health care professionals have shown high stress, anxiety, depression, and poor quality of life than male health care professionals in post covid-19 situations. Present findings do not fully support this hypothesis which again might be the reason that the current study is concerned with the post covid-19 time. The health care professionals are now somewhat familiar with the pandemic and are mentally prepared for the battle against it. A study conducted on the quality of life of health care professionals stated that there is a mild degree of depression, anxiety, and stress in the lives of healthcare professionals. Female health

care professionals have shown a greater extent of stress than male professionals (Hosseinzadeh-Shanjani *et al.*, 2020).

Similarly, another study concerned with the quality of life of health care professionals recorded the psychological consequences of the pandemic of covid-19 on health care professionals and some risk factors for the poor quality of life supported the current study (Fteropoulli *et al.*, 2021).

The stress scores of female healthcare professionals seem to be higher than those of male professionals. It was also examined that the level of anxiety and depressions were significantly higher than that of male healthcare professionals. These studies support the current study and show that females are more vulnerable (Çelmeçe & Menekay, 2020).

Implications & Suggestions

The results have significant practical implications, in the field of psychology and mental health.

- The current article filled the gaps in Pakistani literature regarding post corona lockdown studies of health care professionals belonging to the above-mentioned areas, especially in the mental health domain.
- The present work provided insight into the prevalence of mental health issues in health care workers.
- An efficient and culturally adaptive intervention program can be developed for healthcare professionals to improve their physical and emotional wellbeing, and this is especially important during and after post pandemic situation.
- Follow up strategies can be developed for healthcare professionals to see the improvement in their mental health and quality of life after the pandemic.

Limitation

This study has some limitations.

- First, the number of samples was small compared with the total number of health care professionals in Malakand, Swat, and Dir. More data collection can be done in future research on similar topics.
- Health care professionals included in the present article were in an unbalanced proportion, so equivalent groups can be made and studied.
- The study is concerned with post covid-19 situation and as now healthcare professionals are used to any type of mental and psychological crisis, hence, this might have affected the findings of the current study.

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Conflict of Interest

Authors have no conflict of interest.

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